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### DETAILED ACTION

1. This action is responsive to application # 09/809,169, filed on March 16, 2001. Claims 1-10 are presented for examination.

*The Abstract is objected to for reciting the legal phraseology*  
2. ~~Applicant is reminded of the proper language and format for an abstract of the disclosure.~~

*is joint means*  
In line 3 of the abstract, the term "joint means" is used which is a legal phraseology. *Applicant is reminded that*

*A* and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Appropriate action is required.

### Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

3. Claims <sup>1b are</sup> 7 is rejected under 35 U.S.C. 112 second paragraph as being indefinite.

As to claim 7, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

claims 8-10 are rejected for fully incorporating the deficiencies of <sup>independent</sup> clm 7 by dependency —

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) The invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim 1-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Ozawa et al, US Patent No. (6,224,249) referred to hereinafter as Ozawa.

As to claim 1, Ozawa teaches an analytic model preparing apparatus for preparing an analytic model for analysis from a CAD model (see col.5 lines 20-26, et-seq), wherein said apparatus has the function of searching a joint portion from data of said CAD model (see col.5 lines 50-56, et-seq) and emphatically displaying (see col.5 lines 35-38, et-seq) the joint portion (see col.2 lines 21-24).

As to claim 2, Ozawa teaches an analytic model preparing apparatus for preparing an analytic model for analysis from a CAD model (see col.5 lines 20-26, et-seq), wherein said apparatus has the function of searching a joint portion from data of said CAD model (see col.5 lines 50-56, et-seq) and preparing an analytic model (see col.5 lines 10-15, Fig1 Block e3) corresponding to the joint portion (see col.2 lines 21-24).

As to claim 3, Ozawa teaches a storage medium storing an analytic model preparing program (see col.6 lines 6-12, et-seq.) for preparing an analytic model for analysis from a CAD model (see col.5 lines 20-26, et-seq), wherein said analytic model preparing program provides the function of searching a joint portion from data of said CAD model (see col.5 lines 50-56, et-

seq) and delivering a signal for emphatically displaying (see col.5 lines 35-38, et-seq) the joint portion (see col.2 lines 21-24).

As to claim 4, Ozawa teaches a storage medium storing an analytic model preparing program (see col.6 lines 6-12, et-seq.) for preparing an analytic model for analysis from a CAD model (see col.5 lines 20-26, et-seq), wherein said analytic model preparing program provides the function of searching a joint portion from data of said CAD model (see col.5 lines 50-56, et-seq) and preparing an analytic model (see col.5 lines 10-15, Fig1 Block e3) corresponding to the joint portion (see col.2 lines 21-24).

As to claim 5, Ozawa teaches a storage apparatus storing an analytic model preparing program (see col.6 lines 6-12, et-seq.) for preparing an analytic model for analysis from a CAD model (see col.5 lines 20-26, et-seq), wherein said analytic model preparing program provides the function of searching a joint portion from data of said CAD model (see col.5 lines 50-56, et-seq) and delivering a signal for emphatically displaying (see col.5 lines 35-38, et-seq) the joint portion (see col.2 lines 21-24).

As to claim 6, Ozawa teaches a storage apparatus storing an analytic model preparing program (see col.6 lines 6-12, et-seq.) for preparing an analytic model for analysis from a CAD model (see col.5 lines 20-26, et-seq), wherein said analytic model preparing program has the function of searching a joint portion from data of said CAD model (see col.5 lines 50-56, et-seq) and preparing an analytic model (see col.5 lines 10-15, Fig1 Block e3) corresponding to the joint portion (see col.2 lines 21-24).

As to claim 7, Ozawa teaches an analytic model preparing apparatus for preparing an analytic model for numerical analysis in respect of a CAD model (see col.5 lines 20-26, et-seq)

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including a joint means such as welding, rivet, bolt, screw or adhering, comprising: means for inputting, as the CAD model, profile data and a profile attribute of an object to be analyzed (see col.5 lines 37-39); means for searching a part of laminate structure from said CAD model to prepare a neutral plane model (see col.2 lines 31-36); means for extracting a joint target part, a joint position and a joint means from said CAD model (see col.5 lines 52-61); means for registering said extracted joint target part, joint position and joint means as parts joint data (see col.8 lines 38-41); means for retrieving a joint model preparing object corresponding to said joint means registered in said parts joint data from a joint model preparing object database (see col.3 lines 20-27); means for executing a joint model preparing process registered in said joint model preparing object to prepare a joint model (see col.2 lines 39-46, et-seq); and means for synthesizing said joint model and said neutral plane model to prepare an analytic model (see col.13 lines 45-48).

As to claim 8, Ozawa teaches an analytic model preparing apparatus according to claim 7, wherein as said joint model preparing object, the joint means, joint model type, joint model attribute and joint model preparing procedure are registered in said joint model preparing object database (see col.3 lines 20-27).

As to claim 9, Ozawa teaches an analytic model preparing apparatus according to claim 7, further comprising means for registering said joint target part, joint position and joint means in a three-dimensional CAD model as assembly joint data, and means for registering said joint target part, said joint position and said joint means as parts joint data (see col.8 lines 38-41).

As to claim 10, Ozawa teaches an analytic model preparing apparatus according to claim 7, further comprising means for emphatically displaying a joint position identified from said CAD model on an input/output unit (see col.5 lines 35-38, et-seq).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Harrison et al. US Patent No. (6,611,725) computer drawing system.
- Hirata et al. US patent No. (5,831,875) Link mechanism analyzer and link mechanism joint data arithmetic apparatus.
- Yoshikawa et al. US Patent No. (6,792,397) coupling parts information generation system, method of generating coupling parts of information, and computer readable medium.

### ***Communication***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mussa A Shaawat whose telephone number is (703) 605-1372. The examiner can normally be reached on Monday-Friday (8:30am to 5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jean R Homere can be reached on (703) 308-6647. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mussa Shaawat  
Examiner  
October 4, 2004

U.S. DEPARTMENT OF COMMERCE

PATENT AND TRADEMARK OFFICE

# EXAMINER'S CASE ACTION WORKSHEET

Application No.  
09/809,169



Legal Instrument Examiner

CHECK TYPE OF ACTION

DATE OF COUNT

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|---|---|---|
| <input checked="" type="checkbox"/> Non-Final Rejection                                       | <input type="checkbox"/> Restriction/Election Only  | <input type="checkbox"/> Final Rejection  |
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| <input type="checkbox"/> Abandonment  | <input type="checkbox"/> Express Abandonment<br>Date: _____                                     | <input type="checkbox"/> Other<br>Specify: _____  |

Examiner's Name: Mussa A Shaawat

AU: 2128